20P2034

Reg. No ..... Name .....

M. Sc DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER 2 : BOTANY

COURSE : **16P2BOTT07 : PLANT ANATOMY, PRINCIPLES OF ANGIOSPERM SYSTEMATICS & MORPHOLOGY**

(For Regular - 2019 Admission & Supplementary 2018/2017/2016 Admissions)

Time : Three Hours Max. Marks: 75

Section A
Answer any 8 (2 marks each)

1. Define primary meristem. Give one example.
2. Briefly explain the ways in which wood parenchyma are distributed?
3. What are passage cells? Mentions their function.
4. With the help of diagrams explain the structure of dicot and monocot stomata.
5. What are the functions of trichomes?
6. Explain the anatomical features of drought resistant plants.
7. What are the different types of roots in epiphytes?
8. What is phylogenetic system of classification? Give any one example.
9. What is an ideal species?
10. What is a paraphyletic group?
11. What is the role of leaf anatomy in solving taxonomic problems? Give an example.
12. What is phenetics?

(2 x 8 = 16)

Section B
Answer any 7 (5 marks each)

13. Briefly explain the structure of root apex.
14. Compare angiosperm wood with gymnosperm wood.
15. Briefly explain various types of parenchyma .
16. Compare the features of natural and phylogenetic system of classifications. Give examples for each.
17. Differentiate plesiomorphic and apomorphic characters.
18. Explain role of floral anatomy in solving taxonomic problems. Give examples.
19. Explain the procedure of author citation at different situations.
20. Explain the role of flavonoids and alkaloids in chemotaxonomic studies? Give examples.
21. Classify flowers based on the position of ovary. Give examples.
22. Explin the structure of a Capitulum inflorescence.

(5 x 7 = 35)

Section C
Answer any 2 (12 marks each)

23. How do you distinguish dicot wood from gymnosperm wood based on anatomical features?

OR

24. With suitable illustrations, describe different types of trichomes in plants.

25. Write an essay on the classification of fruits. Give examples.

OR

26. Explain principle and procedure of phenetics and cladistics.

(12 x 2 = 24)